UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,572	09/12/2003	Makoto Sasaki	117128	5285

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EXAMINER
KAU, STEVEN Y

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Advisory Action ***Before the Filing of an Appeal Brief***	*10/660,572*	SASAKI, MAKOTO
	Examiner	**Art Unit**	
	STEVEN KAU	2625	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>31 October 2008</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

      Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

      NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-20*.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625

/Steven Kau/
Examiner, Art Unit 2625
11/7/2008

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's remarks and arguments have been received on October 31, 2008. Applicant's arguments with respect to claims 1-20 have been fully considered and are not persuasive.

With respect to Section "Claim 20 is Not Duplicative"

Applicant argues, "Claims 20 and 10 do not cover the same subject matter as alleged. Claim 10 is directed to a color processing apparatus comprising: (1) a color adjustment distance calculation section; and (2) a reproduction color decision section. However, claim 20 is directed to a printer comprising a color processing device that includes: (1) a color adjustment distance calculation section; and (2) a reproduction color decision section. Thus, claim 20 recites an additional element (e.g., a printer) not recited in claim 10.
Examiner Kau asserted during the interview that the color processing apparatus could function as a printer. However, as discussed, claim 10 is directed to structure that processes color. There is no structure that explicitly describes or claims printing of the processed color. Although there is a reproduction color decision section, this section decides a reproduction color to use, but does not otherwise "print" the decided color. By contrast, claim 20 is directed to a printer which, in addition to including a color processing device that has a color adjustment distance calculating section and a reproduction color decision section, also further limits the claim by reciting "printer" which must include by the known meaning of the word some structure in addition to processing capability that achieves this functionality of the ability to print. Thus, as discussed, although claim 10 may be a genus claim that broadly encompasses claim 20 because of the open-ended language, claim 20 further limits the subject matter of claim 10 by additionally reciting a "printer." Therefore, although similar, there is a difference in claim scope", pages 2-3, Remarks.

 In re, the examiner respectfully disagrees with the argument. Claim 20 was objected to under 37 CFR 1.75 as being a substantial duplicate of claim 10. These claims are compared as follows:
Claim 20:
Preamble: A printer comprising: a color processing device for adjusting colors of a specific region, which is a subject of the adjustment in a color image, wherein the color processing apparatus includes:
(A) a color adjustment distance calculation section for calculating a color adjustment distance, which is a distance on a color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color;
(B) and a reproduction color decision section for deciding a reproduction color expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance, wherein the reproduction color is located between the representative color and the target color.

Claim 10:
Preamble: A color processing apparatus for adjusting colors of a specific region, which is a subject of the adjustment in a color image, the color processing apparatus comprising:
(A) a color adjustment distance calculation section for calculating a color adjustment distance, which is a distance on a color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color;
(B) and a reproduction color decision section for deciding a reproduction color expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance, wherein the reproduction color is located between the representative color and the target color.

As explained to applicant's attorney during the personal interview, that both claims are directed to a device claim with identical features, or limitations, and according to 37 CFR 1.75, and MPEP 706.03(k), "when two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim", thus claim 20 is a duplicate claim of claim 10.

With respect to section "Finality is Premature"

Applicant argues, "Because the above objection of claim 20 was not previously of record and because Applicant did not amend claim 20 in the last response, this new grounds of objection was not necessitated by Applicant's amendment. Therefore, the finality of this Office Action is premature", page 3, Remarks.

In re, the examiner respectfully disagrees with this statement. According 37 CFR 1.113(b), "In making such a final rejection or action, the examiner shall repeat or state all grounds of rejection then considered applicable to the claims in the application, clearly stating the reasons in support thereof." The examiner explained how all grounds and rational of rejection applied to the application in detail in the sections response to Remark/Arguments as well as in the claim rejection, and clearly stated in the Final Action that "the same ground of rejection is maintained and the prosecution of the application is made final", page 6, Office Action, dated 7/28/2008. Thus, the final rejection made is proper and mature.

With respect to section "Rejection of Independent Claims 1, 10, 19 and 20"

Applicant argues, "As discussed during the interview, Kojima fails to disclose or suggest "calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color," and "deciding a reproduction color expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance."
During the interview, Kojima was discussed. The Office Action relying on col. 4, line 46 to col. 5, line 5 and col. 11, lines 33-40 alleges that Kojima teaches how to select a target color by calculating a variance. Furthermore, Kojima teaches calculation of an average of color data of target color for dividing a region into two sections. Applicant   respectfully disagrees that this corresponds to the recited claim

language of claims 1, 10, 19 and 20. In the subject matter of the rejected independent claims, a color adjustment distance is calculated that is a 'distance on a color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color." Moreover, a reproduction color located between the representative color and the target color is decided that expresses "the representative color of the specific region after the adjustment on the basis of the color adjustment distance.' The recited target color may be, for example, a given color, a color selected from a plurality of colors, or a color having a predetermined color component ratio (Applicant's specification on pg. 6, lines 7-13). For example, a target color to be adjusted may be sky or flesh tone. As set forth in Applicant's page 3, there is a problem when color is adjusted that is widely different from the target color. For example, the color of sky near a cloudy sky should not be adjusted to that of a target sky color. However, by the recited method and apparatus, unnaturalness due to adjustment to a target color can be prevented because a reproduction color is determined that is between a representative color and the target color on the basis of the color adjustment distance. As discussed, this feature is shown, for example, in Applicant's Fig. 6 where depending on the distance, the reproduction color changes).

In Kojima, as described in Fig. 3 and on col. 5, line 26 to col. 6, line 39, target color selection is described. However, the target color is selected by identifying a primary color of greatest variance using equation 2 from col. 5. All that is achieved with this target color is dividing of a small region into two picture elements -- those above the average for that primary color and those below the average. This division of the small region is continued until a desired number of colors is produced (col. 3, lines 27-37). Accordingly, the alleged "variance" in Kojima does not equate to the recited calculating of a color adjustment distance. Examiner Kau referred Applicant's representative to Kojima's Fig. 6 and step $203 where a Euclidian distance is computed. While this computes a distance, it is for an entirely different purpose of achieving a compression of data (see Kojima Abstract). Therefore, it is not used or contemplated for the specific usage recited in Applicant's claims which is directed to color adjustment, such as a change in luminosity, chroma, hue, etc. That is, Kojima fails to decide a reproduction color expressing the representative color of the specific region after adjustment on the basis of the color adjustment distance or that the reproduction color is between the representative color and the
target color as claimed.

Instead, in Kojima, as shown in Fig. 3, the average of each color R, G and B in a 4 x 4 small region is calculated (using equation 1) and the variance of the small region is also calculated (using equation 2). G is chosen because its variance is maximum compared to R and B. The region is then divided into two regions 502 and 503 depending on whether G pixel value is greater than the average G value in the region. The representative color of the small region is expressed by representative colors of two sections 502 and 503 designated by C1 and CO. C1 and CO are averages of regional RGB values in the divided sections 502 and 503 within the small region of 4 x 4 pixels.

Therefore, as discussed during the interview, Kojima's representative colors are chosen based on whether above or below the average color and variance of the color in the small region (for purposes of data compression). If above the average, they are changed regardless of their distance.

Thus, Kojima fails to teach or provide reasons for calculating a color adjustment distance between a representative color and a target color, or deciding a reproduction color expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance, as recited in independent claim 1 and similarly recited in claims 10,19 and 20. That is, the color adjustment does not differ based on the distance (such as shown in Applicant's Fig. 6), but instead on the average of the pixels in each divided region. Thus, the reproduction color is not adjusted toward a target color, such as sky, so as to be between the representative color and the target color as claimed. "

In re, the examiner respectfully disagrees with the above conclusion. First, the personal interview was limited to one hour of time and it is impossible to go through each limitation in detail with the time provided. The main subject during the interview was that the examiner explained why claim 20 is objected to as a duplicate claim to claim 10, and the prior art reference Kojima was not discussed in detail. However, during the interview, the examiner clearly stated that the examiner has reviewed the application prosecution twice and applicant's remarks and arguments were fully considered, and the responses to applicant's remarks and arguments were provide in detail in the final office action. As stated in the final office action, the examiner stated that the above argument is not persuasive. For example, in the response to applicant's argument of "Kojima fails to disclose or suggest 'calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color,' and 'deciding a reproduction color expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance'." In re, the Examiner disagrees with the conclusion. With regarding to the first limitation, recites "calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color", Kojima discloses five embodiments for determining target color, and the difference, or distance between a representative color of a region, e.g. a small region and the target color. Kojima's teaching reads the claim limitation of "calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color" in col 4, line 46 to col 5, line 5, and col 11, lines 33-40 as discussed in the office action of 1/16, 2008. Kojima divides the color space into small region for color value calculation because color image has a huge size of data and converting data of a small region can be processed at high speed (col 1, line 14 and col 2, lines 8-12). In addition, Kojima teaches how to select a target color by calculating a variance (col 4, lines44-55) does not mean fail to teach "calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color". Rather, a target color is a key element for calculating the distance between a reference color and a target color. Furthermore, calculating average of respective basic-color data of target color for dividing the region into two section (col 4, lines 38-58 and Steps S00-S101, S103 & S107 0f Fig. 1) does not affect teaching "calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color". Rather, it is necessary in the process for preparing and store the region information for the next step - calculating (deciding, adjusting) and store representative color (reproduction color) of respective sections (Fig. 1, Step S109, col 4, line 66 to col 5, line 5). With regarding to the second claim limitation, Kojima teaches "deciding (calculating step, Step S205 of Fig. 6) a reproduction color (representative colors, Step S205 of Fig. 6) expressing the representative color of the specific region after the adjustment (calculating color difference, Step S203 of Fig 6) on the basis of the color adjustment distance" (Fig. 6, col 11, line   55 to col 12, line 30), pages 2-4, Final Office Action, dated

7/28/2008. As stated in the final office action, with respect to claims 1, 10, 19 and 20, the rejection made is proper and rejection ground still stands.

With respect to section "Rejection of Independent Claim 11"

Applicant further argues, "Kojima and Hiratsuka, alone or in combination, fail to disclose or suggest "calculating a reproduction distance coefficient, which is used to calculate a reproduction color expressing the representative color of the specific region after color adjustment, on the basis of the color adjustment distance," as recited in independent claim 11.
The Office Action again concedes that Kojima fails to teach this feature. The Office Action alleges that Hiratsuka teaches a reproduction distance coefficient calculation unit (Figs. 1 and 2) for calculating a reproduction distance coefficient (luminosity, chroma and hue parameters), which is used to calculate a reproduction color expressing the representative color of the specific region of the color adjustment (col. 11, lines 11-22; col. 13, lines 10-30),
and reproduction color calculation unit for calculating the reproduction color on the basis of the reproduction distance coefficient (col. 11, lines 11-22; col. 13, lines 10-30).
However, the color distance calculation equations in col. 11, lines 11-22, and col. 13, lines 10-30 are to calculate a Euclidean distance between the interpolated color and the designated color on the color space to obtain the interpolated color (Abstract). Hiratsuka uses these distances to interpolate the color adjustment in a five-dimensional table and to calculate accurate level of a reference point (lattice point) (col. 10, line 64 to col. 11, line 3).
Therefore, the distance calculated by these equations is not used to obtain a reproduction distance coefficient (such as luminosity, chroma or hue), as recited in claim 11.
The Office Action on page 5 alleges that interpolation is a process of calculating a reproduction distance coefficient with a mathematical approach and corresponds to the recited "calculating a reproduction distance coefficient." Applicant disagrees.
Hiratsuka fails to appreciate the problems solved by the claims. Moreover, Hiratsuka is not combinable with Kojima. Kojima relies on a color with the maximum variance (col. 5, lines 64-67) as the target color. The interpolation of Hiratsuka would have no purpose in Kojima or would alter the fundamental operation of Kojima. If a proposed modification would render the art being modified unsatisfactory for its intended purpose, then
there is no suggestion or motivation to make the proposed modification. In re Gordon, 733,
F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).
Accordingly, independent claim 11 and claims dependent therefrom distinguish over Kojima alone or in view of Hiratsuka. The various secondary references fail to overcome these deficiencies. "

In re, the examiner respectfully disagrees with the conclusion made above. As stated in the final rejection, the examiner explained in detail of how the claim limitations of claim 11 are taught by Kojima' 704 in view of Hiratsuka' 441. For instance, in responsive to the section of "Rejection of Claim 11", page 5 of Remarks, applicant argues, "Kojima and Hiratsuka, alone or in combination, fail to disclose or suggest 'calculating a reproduction distance coefficient, which is used to calculate a reproduction color expressing the representative color of the specific region after color adjustment, on the basis of the color adjustment distance,' as recited in independent claim 11."
In re, as discussed above, Kojima teaches the claim limitations, recite, "'calculating a color adjustment distance, which is a distance on the color space between a representative color representing the specific region in the color image and a target color, which is target of the adjustment, on the basis of the representative color and the target color,' and 'deciding a reproduction color expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance". Giving the fact that Hiratsuka teaches "calculating a reproduction distance coefficient" (Figs. 1 & 2, col 11, lines 11-22 & col 3, lines 1-30) as discussed in the office action, 1/16/2008.
Applicant argues, "However, the color distance calculation equations in col. 11, lines 11-22, and col. 13, lines 10-30 are to calculate a Euclidean distance between the interpolated color and the designated color on the color space to obtain the interpolated color (Abstract). Hiratsuka uses these distances to interpolate the color adjustment in a five-dimensional table and to calculate accurate level of a reference point (lattice point) (col. 10, line 64 to col. 11, line 3)."
        In re, the examiner disagrees. "Interpolate, or interpolation is a method of constructing new data points within the range of a discrete set of known data point" (http://en.wikipedia.org/wiki/Interpolation). Hiratsuka teaches a process of calculating a reproduction distance coefficient with a mathematic approach does not mean fail to teach the claim limitation "calculating a reproduction distance coefficient", rather, he provides a well-established process of calculating a reproduction distance coefficient.
Thus, having a color processing apparatus of Kojima's 704 reference and a well-established teaching of calculating a reproduction distance coefficient provided by Hiratsuka' 441 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the color process apparatus of Kojima's 704 reference to include calculating a reproduction distance coefficient as taught by Hiratsuka' 441 reference, since doing so would improve color adjust process at high speed and high accuracy (col 10, lines 62 to col 11, line 6, Hiratsuka), and further the calculating a reproduction distance coefficient provided could be implement able for one another with predictable results.
Since claims 1, 10, 19 and 20 are anticipated by Kojima' 704 and claim 11 is taught by the combination of Kojima' 704 and Hiratsuka' 441, the rejection ground to this application is maintained and the prosecution of this application is made final in this office action, pages 4-6, Final Action dated 7/28/2008.

Conclusion:
As discussed in the final action, arguments with respect to claims 1-20 are not persuasive and all ground rejections still stand.